SEQUENCE LISTING

<110> Andersen, Peter
     Skjot, Rikke Louise Vinther
     Okkels, Li Mei Meng
     Brock, Inger
     Oettinger, Thomas

<120> Nucleic Acid Fragments and Polypeptide Fragments Derived from M.
     Tuberculosis

<130> 670001-2002.6

<140> 09/872,505
<141> 2001-06-01

<150> 09/804,980
<151> 2001-03-13

<150> US09/615,947
<151> 2000-07-13

<150> US09/246,191
<151> 1998-12-30

<150> 60/070,488
<151> 1998-01-05

<150> 60/144,011
<151> 1999-07-15

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<211> 324
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<220>
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Leu Thr His Lys Arg Thr Lys Arg Gln Pro Ala Ile Ala Ala Gly Leu
 1   5   10   15

aac gcc ccg cgt cgg aat cgc gtt ggg cgg caa cat ggt tgg ccg gcc   96
Asn Ala Pro Arg Arg Asn Arg Val Gly Arg Gln His Gly Trp Pro Ala
            20   25   30

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gac gtt ccg tcc gcc gag cag cgc cgc gcc caa cgg cag cgc gac ctc      144
Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu
        35                  40                  45

gag gct atc cgc cga gcg tac gcc gag atg gtg gcg aca tca cac gaa      192
Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu
    50                  55                  60

atc gac gac gac aca gcc gaa ctg gcg ctg ttg tcg atg cat ctc gac      240
Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp
65                  70                  75                  80

gat gag cag cgc cgg ctt gag gcg ggg atg aag ctc ggc tgg cat ccg      288
Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro
                85                  90                  95

tat cac ttc ccc gac gaa ccc gac agc aaa cag tga                      324
Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln
                100                 105
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<210> 2
<211> 107
<212> PRT
<213> Mycobacterium tuberculosis

<400> 2
Met Thr His Lys Arg Thr Lys Arg Gln Pro Ala Ile Ala Ala Gly Leu
1               5                   10                  15
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                20                  25                  30
Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg Asp Leu
        35                  40                  45
Glu Ala Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu
    50                  55                  60
Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser Met His Leu Asp
65                  70                  75                  80
Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro
                85                  90                  95
Tyr His Phe Pro Asp Glu Pro Asp Ser Lys Gln
                100                 105
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<211> 246
<212> DNA
<213> Mycobacterium tuberculosis

<220>
<221> CDS
<222> (1)...(243)

<400> 3
atg agc ggc cac gcg ttg gct gct cgg acg ttg ctg gcc gcc gcg gac      48
Met Ser Gly His Ala Leu Ala Ala Arg Thr Leu Leu Ala Ala Ala Asp
1               5                   10                  15

gag ctt gtc ggc ggc ccg cca gtc gag gct tcg gcc gcc gcg ctg gcc      96
Glu Leu Val Gly Gly Pro Pro Val Glu Ala Ser Ala Ala Ala Leu Ala
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ggc gac gcc gcg ggc gca tgg cgg acc gcg gcc gtc gag ctt gcg cga    144
Gly Asp Ala Ala Gly Ala Trp Arg Thr Ala Ala Val Glu Leu Ala Arg
        35              40              45

gcg ttg gtc cgc gct gtg gcg gag tcg cac ggc gtc gcg gcc gtt ttg    192
Ala Leu Val Arg Ala Val Ala Glu Ser His Gly Val Ala Ala Val Leu
        50              55              60

ttc gcc gcg acg gcc gcc gcg gcg gcg gcc gtc gac cgg ggt gat ccg    240
Phe Ala Ala Thr Ala Ala Ala Ala Ala Ala Val Asp Arg Gly Asp Pro
65              70              75              80

ccg tga                                                            246
Pro
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<210> 4
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<212> PRT
<213> Mycobacterium tuberculosis

<400> 4
Met Ser Gly His Ala Leu Ala Ala Arg Thr Leu Leu Ala Ala Ala Asp
 1               5              10              15
Glu Leu Val Gly Gly Pro Pro Val Glu Ala Ser Ala Ala Ala Leu Ala
            20              25              30
Gly Asp Ala Ala Gly Ala Trp Arg Thr Ala Ala Val Glu Leu Ala Arg
        35              40              45
Ala Leu Val Arg Ala Val Ala Glu Ser His Gly Val Ala Ala Val Leu
    50              55              60
Phe Ala Ala Thr Ala Ala Ala Ala Ala Ala Val Asp Arg Gly Asp Pro
65              70              75              80
Pro
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<211> 1200
<212> DNA
<213> Mycobacterium tuberculosis

<220>
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taataggccc ccaacacatc ggaggga gtg atc acc atg ctg tgg cac gca atg    54
                       Met Ile Thr Met Leu Trp His Ala Met
                        1               5

cca ccg gag cta aat acc gca cgg ctg atg gcc ggc gcg ggt ccg gct    102
Pro Pro Glu Leu Asn Thr Ala Arg Leu Met Ala Gly Ala Gly Pro Ala
 10              15              20              25

cca atg ctt gcg gcg gcc gcg gga tgg cag acg ctt tcg gcg gct ctg    150
Pro Met Leu Ala Ala Ala Ala Gly Trp Gln Thr Leu Ser Ala Ala Leu
            30              35              40
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gac gct cag gcc gtc gag ttg acc gcg cgc ctg aac tct ctg gga gaa        198
Asp Ala Gln Ala Val Glu Leu Thr Ala Arg Leu Asn Ser Leu Gly Glu
                45                      50                  55

gcc tgg act gga ggt ggc agc gac aag gcg ctt gcg gct gca acg ccg        246
Ala Trp Thr Gly Gly Gly Ser Asp Lys Ala Leu Ala Ala Ala Thr Pro
            60                      65                  70

atg gtg gtc tgg cta caa acc gcg tca aca cag gcc aag acc cgt gcg        294
Met Val Val Trp Leu Gln Thr Ala Ser Thr Gln Ala Lys Thr Arg Ala
            75                      80                  85

atg cag gcg acg gcg caa gcc gcg gca tac acc cag gcc atg gcc acg        342
Met Gln Ala Thr Ala Gln Ala Ala Ala Tyr Thr Gln Ala Met Ala Thr
 90                      95                     100             105

acg ccg tcg ctg ccg gag atc gcc gcc aac cac atc acc cag gcc gtc        390
Thr Pro Ser Leu Pro Glu Ile Ala Ala Asn His Ile Thr Gln Ala Val
                110                     115                 120

ctt acg gcc acc aac ttc ttc ggt atc aac acg atc ccg atc gcg ttg        438
Leu Thr Ala Thr Asn Phe Phe Gly Ile Asn Thr Ile Pro Ile Ala Leu
                125                     130             135

acc gag atg gat tat ttc atc cgt atg tgg aac cag gca gcc ctg gca        486
Thr Glu Met Asp Tyr Phe Ile Arg Met Trp Asn Gln Ala Ala Leu Ala
            140                     145                 150

atg gag gtc tac cag gcc gag acc gcg gtt aac acg ctt ttc gag aag        534
Met Glu Val Tyr Gln Ala Glu Thr Ala Val Asn Thr Leu Phe Glu Lys
    155                     160                 165

ctc gag ccg atg gcg tcg atc ctt gat ccc ggc gcg agc cag agc acg        582
Leu Glu Pro Met Ala Ser Ile Leu Asp Pro Gly Ala Ser Gln Ser Thr
170                     175                 180                 185

acg aac ccg atc ttc gga atg ccc tcc cct ggc agc tca aca ccg gtt        630
Thr Asn Pro Ile Phe Gly Met Pro Ser Pro Gly Ser Ser Thr Pro Val
                190                     195                 200

ggc cag ttg ccg ccg gcg gct acc cag acc ctc ggc caa ctg ggt gag        678
Gly Gln Leu Pro Pro Ala Ala Thr Gln Thr Leu Gly Gln Leu Gly Glu
                205                     210                 215

atg agc ggc ccg atg cag cag ctg acc cag ccg ctg cag cag gtg acg        726
Met Ser Gly Pro Met Gln Gln Leu Thr Gln Pro Leu Gln Gln Val Thr
            220                     225                 230

tcg ttg ttc agc cag gtg ggc ggc acc ggc ggc ggc aac cca gcc gac        774
Ser Leu Phe Ser Gln Val Gly Gly Thr Gly Gly Gly Asn Pro Ala Asp
            235                     240                 245

gag gaa gcc gcg cag atg ggc ctg ctc ggc acc agt ccg ctg tcg aac        822
Glu Glu Ala Ala Gln Met Gly Leu Leu Gly Thr Ser Pro Leu Ser Asn
250                     255                 260                 265
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cat ccg ctg gct ggt gga tca ggc ccc agc gcg ggc gcg ggc ctg ctg    870
His Pro Leu Ala Gly Gly Ser Gly Pro Ser Ala Gly Ala Gly Leu Leu
            270             275                 280

cgc gcg gag tcg cta cct ggc gca ggt ggg tcg ttg acc cgc acg ccg    918
Arg Ala Glu Ser Leu Pro Gly Ala Gly Gly Ser Leu Thr Arg Thr Pro
            285             290                 295

ctg atg tct cag ctg atc gaa aag ccg gtt gcc ccc tcg gtg atg ccg    966
Leu Met Ser Gln Leu Ile Glu Lys Pro Val Ala Pro Ser Val Met Pro
            300             305                 310

gcg gct gct gcc gga tcg tcg gcg acg ggt ggc gcc gct ccg gtg ggt    1014
Ala Ala Ala Ala Gly Ser Ser Ala Thr Gly Gly Ala Ala Pro Val Gly
            315             320                 325

gcg gga gcg atg ggc cag ggt gcg caa tcc ggc ggc tcc acc agg ccg    1062
Ala Gly Ala Met Gly Gln Gly Ala Gln Ser Gly Gly Ser Thr Arg Pro
330             335             340                 345

ggt ctg gtc gcg ccg gca ccg ctc gcg cag gag cgt gaa gaa gac gac    1110
Gly Leu Val Ala Pro Ala Pro Leu Ala Gln Glu Arg Glu Glu Asp Asp
            350             355                 360

gag gac gac tgg gac gaa gag gac gac tgg tgagctcccg taatgacaac    1160
Glu Asp Asp Trp Asp Glu Glu Asp Asp Trp
            365             370

agacttcccg gccacccggg ccggaagact tgccaacatt                      1200

<210> 6
<211> 371
<212> PRT
<213> Mycobacterium tuberculosis

<400> 6
Met Ile Thr Met Leu Trp His Ala Met Pro Pro Glu Leu Asn Thr Ala
 1           5                   10                  15
Arg Leu Met Ala Gly Ala Gly Pro Ala Pro Met Leu Ala Ala Ala Ala
            20                  25                  30
Gly Trp Gln Thr Leu Ser Ala Ala Leu Asp Ala Gln Ala Val Glu Leu
            35                  40                  45
Thr Ala Arg Leu Asn Ser Leu Gly Glu Ala Trp Thr Gly Gly Gly Ser
    50                  55                  60
Asp Lys Ala Leu Ala Ala Ala Thr Pro Met Val Val Trp Leu Gln Thr
65                  70                  75                  80
Ala Ser Thr Gln Ala Lys Thr Arg Ala Met Gln Ala Thr Ala Gln Ala
                85                  90                  95
Ala Ala Tyr Thr Gln Ala Met Ala Thr Thr Pro Ser Leu Pro Glu Ile
            100                 105                 110
Ala Ala Asn His Ile Thr Gln Ala Val Leu Thr Ala Thr Asn Phe Phe
            115                 120                 125
Gly Ile Asn Thr Ile Pro Ile Ala Leu Thr Glu Met Asp Tyr Phe Ile
    130                 135                 140
Arg Met Trp Asn Gln Ala Ala Leu Ala Met Glu Val Tyr Gln Ala Glu
145                 150                 155                 160
Thr Ala Val Asn Thr Leu Phe Glu Lys Leu Glu Pro Met Ala Ser Ile
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<210> 10
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 10
Pro Ala Asp Val Pro Ser Ala Glu Gln Arg Arg Ala Gln Arg Gln Arg
1   5   10   15
Asp Leu

<210> 11
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 11
Arg Ala Gln Arg Gln Arg Asp Leu Glu Ala Ile Arg Arg Ala Tyr Ala
1   5   10   15
Glu Met

<210> 12
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 12
Ile Arg Arg Ala Tyr Ala Glu Met Val Ala Thr Ser His Glu Ile Asp
1   5   10   15
Asp Asp

<210> 13
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 13
Thr Ser His Glu Ile Asp Asp Asp Thr Ala Glu Leu Ala Leu Leu Ser
1   5   10   15
Met His

<210> 14
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 14
Glu Leu Ala Leu Leu Ser Met His Leu Asp Asp Glu Gln Arg Arg Leu
1   5   10   15
Glu Ala

<210> 15
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 15

Asp Glu Gln Arg Arg Leu Glu Ala Gly Met Lys Leu Gly Trp His Pro
1   5   10   15
Tyr His

<210> 16
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 16
Met Lys Leu Gly Trp His Pro Tyr His Phe Pro Asp Glu Pro Asp Ser
1   5   10   15
Lys Gln

<210> 17
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 17
Met Ser Gly His Ala Leu Ala Ala Arg Thr Leu Leu Ala Ala Ala Asp
1   5   10   15
Glu Leu

<210> 18
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 18
Ala Ala Asp Glu Leu Val Gly Gly Pro Pro Val Glu Ala Ser Ala Ala
1   5   10   15
Ala Leu

<210> 19
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 19
Ala Ser Ala Ala Ala Leu Ala Gly Asp Ala Ala Gly Ala Trp Arg Thr
1   5   10   15
Ala Ala

<210> 20
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 20
Ala Trp Arg Thr Ala Ala Val Glu Leu Ala Arg Ala Leu Val Arg Ala
1   5   10   15
Val Ala

<210> 21
<211> 18
<212> PRT

<213> Mycobacterium tuberculosis

<400> 21
Leu Val Arg Ala Val Ala Glu Ser His Gly Val Ala Ala Val Leu Phe
1   5   10   15
Ala Ala

<210> 22
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 22
Val Leu Phe Ala Ala Thr Ala Ala Ala Ala Ala Val Asp Arg Gly Asp
1   5   10   15
Pro Pro

<210> 23
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 23
Met Asp Tyr Phe Ile Arg Met Trp Asn Gln Ala Ala Leu Ala Met Glu
1   5   10   15
Val Tyr

<210> 24
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 24
Ala Ala Leu Ala Met Glu Val Tyr Gln Ala Glu Thr Ala Val Asn Thr
1   5   10   15
Leu Phe

<210> 25
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 25
Glu Thr Ala Val Asn Thr Leu Phe Glu Lys Leu Glu Pro Met Ala Ser
1   5   10   15
Ile Leu

<210> 26
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 26
Leu Glu Pro Met Ala Ser Ile Leu Asp Pro Gly Ala Ser Gln Ser Thr
1   5   10   15
Thr Asn

<210> 27
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 27
Gly Ala Ser Gln Ser Thr Thr Asn Pro Ile Phe Gly Met Pro Ser Pro
1   5   10   15
Gly Ser

<210> 28
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 28
Phe Gly Met Pro Ser Pro Gly Ser Ser Thr Pro Val Gly Gln Leu Pro
1   5   10   15
Pro Ala

<210> 29
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 29
Pro Val Gly Gln Leu Pro Pro Ala Ala Thr Gln Thr Leu Gly Gln Leu
1   5   10   15
Gly Glu

<210> 30
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 30
Gln Thr Leu Gly Gln Leu Gly Glu Met Ser Gly Pro Met Gln Gln Leu
1   5   10   15
Thr Gln

<210> 31
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 31
Gly Pro Met Gln Gln Leu Thr Gln Pro Leu Gln Gln Val Thr Ser Leu
1   5   10   15
Phe Ser

<210> 32
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 32
Gln Gln Val Thr Ser Leu Phe Ser Gln Val Gly Gly Thr Gly Gly Gly

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       1                   5                   10                  15
Asn Pro


<210> 33
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis


<400> 33
Gly Gly Thr Gly Gly Gly Asn Pro Ala Asp Glu Glu Ala Ala Gln Met
 1               5                   10                  15
Gly Leu


<210> 34
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis


<400> 34
Glu Glu Ala Ala Gln Met Gly Leu Leu Gly Thr Ser Pro Leu Ser Asn
 1               5                   10                  15
His Pro


<210> 35
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis


<400> 35
Thr Ser Pro Leu Ser Asn His Pro Leu Ala Gly Gly Ser Gly Pro Ser
 1               5                   10                  15
Ala Gly


<210> 36
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis


<400> 36
Gly Gly Ser Gly Pro Ser Ala Gly Ala Gly Leu Leu Arg Ala Glu Ser
 1               5                   10                  15
Leu Pro


<210> 37
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis


<400> 37
Leu Leu Arg Ala Glu Ser Leu Pro Gly Ala Gly Gly Ser Leu Thr Arg
 1               5                   10                  15
Thr Pro


<210> 38
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis
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<400> 38
Gly Gly Ser Leu Thr Arg Thr Pro Leu Met Ser Gln Leu Ile Glu Lys
1   5   10   15
Pro Val

<210> 39
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 39
Ser Gln Leu Ile Glu Lys Pro Val Ala Pro Ser Val Met Pro Ala Ala
1   5   10   15
Ala Ala

<210> 40
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 40
Ser Val Met Pro Ala Ala Ala Gly Ser Ser Ala Thr Gly Gly Ala
1   5   10   15
Ala Pro

<210> 41
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 41
Ala Thr Gly Gly Ala Ala Pro Val Gly Ala Gly Ala Met Gly Gln Gly
1   5   10   15
Ala Gln

<210> 42
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 42
Ala Met Gly Gln Gly Ala Gln Ser Gly Gly Ser Thr Arg Pro Gly Leu
1   5   10   15
Val Ala

<210> 43
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 43
Thr Arg Pro Gly Leu Val Ala Pro Ala Pro Leu Ala Gln Glu Arg Glu
1   5   10   15
Glu Asp

<210> 44

<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 44
Ala Gln Glu Arg Glu Glu Asp Asp Glu Asp Asp Trp Asp Glu Glu Asp
 1   5   10   15
Asp Trp

<210> 45
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 45
Met Leu Trp His Ala Met Pro Pro Glu Leu Asn Thr Ala Arg Leu Met
 1   5   10   15
Ala Gly

<210> 46
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 46
Ala Arg Leu Met Ala Gly Ala Gly Pro Ala Pro Met Leu Ala Ala Ala
 1   5   10   15
Ala Gly

<210> 47
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 47
Pro Met Leu Ala Ala Ala Ala Gly Trp Gln Thr Leu Ser Ala Ala Leu
 1   5   10   15
Asp Ala

<210> 48
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 48
Thr Leu Ser Ala Ala Leu Asp Ala Gln Ala Val Glu Leu Thr Ala Arg
 1   5   10   15
Leu Asn

<210> 49
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 49
Val Glu Leu Thr Ala Arg Leu Asn Ser Leu Gly Glu Ala Trp Thr Gly
 1   5   10   15

Gly Gly

<210> 50
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 50
Gly Glu Ala Trp Thr Gly Gly Gly Ser Asp Lys Ala Leu Ala Ala Ala
1   5   10   15
Thr Pro

<210> 51
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 51
Lys Ala Leu Ala Ala Ala Thr Pro Met Val Val Trp Leu Gln Thr Ala
1   5   10   15
Ser Thr

<210> 52
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 52
Val Trp Leu Gln Thr Ala Ser Thr Gln Ala Lys Thr Arg Ala Met Gln
1   5   10   15
Ala Thr

<210> 53
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 53
Lys Thr Arg Ala Met Gln Ala Thr Ala Gln Ala Ala Ala Tyr Thr Gln
1   5   10   15
Ala Met

<210> 54
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 54
Ala Ala Tyr Thr Gln Ala Met Ala Thr Thr Pro Ser Leu Pro Glu Ile
1   5   10   15
Ala Ala

<210> 55
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 55
Thr Pro Ser Leu Pro Glu Ile Ala Ala Asn His Ile Thr Gln Ala Val
 1   5   10   15
Leu Thr

<210> 56
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 56
Leu Pro Glu Ile Ala Ala Asn His Ile Thr Gln Ala Val Leu Thr Ala
 1   5   10   15
Thr Asn

<210> 57
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 57
Val Leu Thr Ala Thr Asn Phe Phe Gly Ile Asn Thr Ile Pro Ile Ala
 1   5   10   15
Leu Thr

<210> 58
<211> 18
<212> PRT
<213> Mycobacterium tuberculosis

<400> 58
Asn Thr Ile Pro Ile Ala Leu Thr Glu Met Asp Tyr Phe Ile Arg Met
 1   5   10   15
Trp Asn

<210> 59
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer PA2653c

<400> 59
ctgagatctt tgacccacaa gcgcactaaa   30

<210> 60
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer PB2653c

<400> 60
ctcccatggt cactgtttcg ctgtcgggtt c   31

<210> 61
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer PA2654c

<400> 61
ctgagatcta tgagcggcca cgcgttggct   30

<210> 62
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer PB2654c

<400> 62
ctcccatggt cacggcggat caccccggtc   30

<210> 63
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer Rv2653-F

<400> 63
ggggacaagt ttgtacaaaa aagcaggctt attgacccac aagcgcacta a   51

<210> 64
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer Rv2653-R

<400> 64
ggggaccact ttgtacaaga aagctgggtc ctactgtttg ctgtcgggtt cgt   53

<210> 65
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer Rv2654-F

<400> 65
ggggacaagt ttgtacaaaa aagcaggctt aagcggccac gcgttggc   48

<210> 66
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer Rv2654-R

<400> 66
ggggaccact tgtacaaga aagctgggtc ctacggcgga tcaccccggt   50

<210> 67
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide RD1-ORF5f

<400> 67
ctggggatcc gcgtgatcac catgctgtgg   30

<210> 68
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide RD1-ORF5r

<400> 68
tgcaagcttt caccagtcgt cctcttcgtc   30